

CLAIMS:

Sub B1

1. A method for packaging a product in a hermetically sealed container having a cup-shaped rigid or semi-rigid body 106 with a rim 107 fitted with a closure 200, the method comprising:

5 (a) introducing the product into said cup-like shaped body 106;

5 (b) forming an isolated space 204 with a gas inlet 134 and a gas outlet 112, the space 204 defined between said body 106 and a closure-forming member 200 adjacent to and with a clearance from said rim 107;

10 (c) introducing a replacement gas through said inlet 134 to replace at least a substantial portion of gas originally contained in said isolated space 204; and

11 (d) displacing at least one of said body 106 or said closure-forming member 200 towards the other of the two members to close said clearance and to attach the closure-forming member to said rim 107, and hermetically attaching the two to one another to form a gas-tight (steel.) seal

15 2. A method according to Claim 1, wherein said product is a pasty material.

3. A method according to Claim 1 or 2, wherein said product is a food product.

20 4. A method according to Claim 1, wherein the closure-forming member is a film.

5. A method according to Claim 1, wherein the gas outlet is formed by bores 211 leading from the isolated space 204 to the external atmosphere.

6. A method according to Claim 1, wherein the gas outlets are bores 312 in gas communication with a vacuum source 604.

25 7. An apparatus for forming a hermetically sealed product-containing container, the container having an essentially cup-like shaped body 106 with rims 107 fitted with a closure 200; the product not filling the entire container leaving residual space 204 therein; the apparatus comprising:

Sub B2

5 1. a holder 104 for holding said container body 106;
7 2. a spacer member 130 ~~sealingly~~ engageable with said holder 104 and
5 3. with a closure-forming member ~~and~~ having an opening 132 in a
11 state of seal engagement of said spacer member 130 with said
13 holder 104 and said closure-forming member 200, said opening 132,
15 said container body 106 and said closure-forming member 200,
17 define together the isolated space 204;
10 15. a gas inlet 134 and a gas outlet 112 for introducing a replacement gas
17 into said isolated space 204, and exhausting gas therefrom,
respectively; and
15 17. a sealing mechanism comprising a displacing arrangement for
displacing one or both of said container body 106 and said closure-
17 forming member 200 towards one another and attaching them to one
another in a gas-tight fashion.

15 8. An apparatus according to Claim 7, wherein said holder 104 has an
opening 108 for receiving the ^{container} body 106 of the container.

9. An apparatus according to Claim 8, wherein the opening 108 of the
holder 104 is fitted with an axially projecting skirt 110 for engagement with ^{the}
rim 107 of the container 106.

20 10. An apparatus according to Claim 7, wherein the holder 104 is provided with
bores 112, serving as gas outlets.

11. An apparatus according to Claim 7, wherein said spacer member 130 has
gas inlet nozzles 134 formed so they open into (said opening) 132 for introducing a
replacement gas into a sealed space.

25 12. An apparatus according to Claim 7, wherein said sealing mechanism
displaces said closure member 200 to sealingly engage said rim 107, through the
opening 132 of said spacer member 130.

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Forming

13. An apparatus according to Claim 1, wherein said closure member is a heat weldable film 200, said container body 106 is made of a plastic material, and the engagement of the film to the container body's rim is by means of heat welding.

14. An apparatus according to Claim 13, comprising a trimming member 180 for trimming edges of the film 200 after the heat welding.

15. An apparatus according to Claim 7, wherein said gas outlet is connected to a vacuum source 606.

16. An apparatus according to claim 14, wherein the trimming member 180 and a heat sealing plate 160 of the sealing mechanism are axially displaceable through 10 (an opening in the spacer member) 130.

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